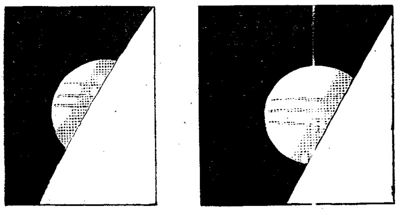
1889MNRAS..50...41N

As the Moon receded, an unmistakable shade (about $\frac{1}{4}$ of *Jupiter's* diameter) was seen projected on Jupiter, thus :—



This shaded band was parallel to the Moon's limb, and was visible during the whole of the transit of the Moon's limb over *Jupiter*.

Last contact. Half a second *before* the time given, *Jupiter* was "hanging on" the Moon.

Half a second *after* "last contact" *Jupiter* just free from Moon's limb.

Reappearance of *Jupiter's* Satellites.

Good observations.

Mr. F. A. Bellamy. Dollond Telescope: aperture, $3\frac{3}{4}$-inch; power, 80.

Disappearance of *Jupiter.*

First contact. Bad definition, no sharp edge; may be quite 5^s late.

Last contact. Good observation. Limb very sharp. Quite satisfactory.

Radcliffe Observatory, Oxford:
1889, *November* 7.

Occultation of Jupiter by the Moon, 1889 *August* 7, *observed at Forest Lodge, Maresfield.* By Captain William Noble.

As the Sun was still above the horizon when the occultation began, and lighted a cirrous haze drifting over the Moon and *Jupiter*, the observation of disappearance was extremely difficult. The planet looked like the veriest ghost of itself, and had to be very steadily regarded for a defined limb to be seen at all. The actual observation of first contact was simply impossible; but by $16^h\ 11^m\ 1^s$ L.S.T. the Moon's limb had perceptibly encroached on *Jupiter*, who finally disappeared at $16^h\ 12^m\ 32^s{\cdot}6$ L.S.T. $=7^h\ 6^m\ 34^s{\cdot}9$ L.M.T., or $7^h\ 16^m\ 17^s{\cdot}8$ G.M.T. The interest of the occultation, however, culminated in the reappearance of the planet; the first glimpse of which I caught at $17^h\ 5^m\ 52^s{\cdot}4$ L.S.T., perhaps one or two seconds late. It had finally emerged, and, as nearly as I could judge, its limb and that of the Moon were tangent at $17^h\ 7^m\ 45^s{\cdot}4$ L.S.T.$=8^h\ 1^m\ 38^s{\cdot}68$ L.M.T., or

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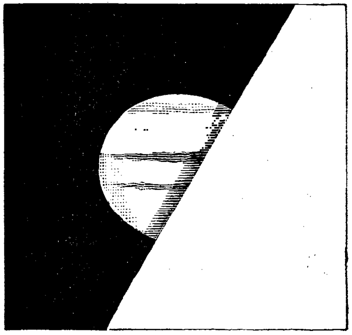
$8^h\ 1^m\ 21^s{\cdot}57$ G.M.T. As the planet appeared to emerge from behind the Moon the two equatorial belts were notably hard, dark, and sharp, and one towards *Jupiter's* south pole was also conspicuous. The most remarkable feature visible, though, I have endeavoured to depict in the accompanying sketch. It was a strongly marked shading, following the outline of the Moon's limb; and it gave a perfectly stereoscopic effect to the Moon and planet, the former being apparently much nearer to the eye. The detail on the planet's surface seemed generally to improve from its proximity to the Moon's limb, and presented that sharpness often incident on the passage of a light cloud or haze over the planet. *Jupiter* looked, generally, somewhat darker than the Moon, but this seemed rather an effect of colouring than of obscuration. The shadow, of which the sketch gives a very fair idea, was, though, as I have previously said, by far the most remarkable feature observable. I employed a power of 135 (of course with a positive eye-piece) on the position micrometer of my 4·2 inch equatorial. The latitude of my Observatory is 51° 0′ 59″·8 north, and its longitude 17·11 seconds east of Greenwich.



The Late Occultation of Jupiter. By the Rev. S. J. Johnson, M.A.

The sky was everything that could be desired here on the evening of August 7 for the occultation of *Jupiter*. A higher power than 50 on $3\frac{1}{4}$-inch was not advisable. Contrary to what I had expected, the relative brightness of the planet seemed slightly fainter than that of the Moon on eye estimation. As the dark limb of the Moon was invisible, the impression produced on the eye of the observer, in an irresistible manner, was that of a rapid eclipse of a miniature Sun or Moon. At $7^h\ 0^m\ 24^s$ (time by sextant) there appeared an indentation on the circle of *Jupiter*. This was probably three or four seconds late. At $7^h\ 1^m\ 58^s$ the whole was submerged behind the dark limb of the Moon. First impression of the reappearance of *Jupiter* at $7^h\ 52^m\ 34^s$. Planet entirely clear of the Moon $7^h\ 54^m\ 20^s$. The Sun had set less than twenty minutes. The striking spectacle of all was the pale white-yellow colour of *Jupiter* close to the

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